

REMARKS

Claims 1-98 are pending, with claims 1, 50, 54, 68, 71, 80, and 85 being independent. By virtue of this amendment, claims 1, 28, 29, 50, 71, 73, and 80 are amended. No new matter has been added.

Claims 1-12, 23, and 54-70 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Publication 2004/0046736 to Pryor (Pryor). Claims 13-22 and 24-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pryor in view of U.S. Patent No. 6,661,918 to Gordon (Gordon) and/or U.S. Patent No. 6,125,198 to Onda (Onda). Claims 71-91 and 96-98 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pryor in view of U.S. Publication 2001/0033675 to Maurer et. al. (Maurer).

Claims 92-95 are objected to as being dependent upon a rejected base claim, but would be allowable if re-written in independent form. Applicant thanks the Examiner for the indication of allowable subject matter in claims 92-95, and notes the presence of a typographical error on the Form PTOL-326 (Office Action Summary), at line 6 of which all of claims 1-98 (including objected-to claims 92-95) are indicated to be rejected, and at line 7 of which claims 92-95 are mistakenly not listed.

Regarding the rejection of independent claim 1 as being anticipated under 35 U.S.C. 102(e) by Pryor, Applicant respectfully submits that Pryor does not disclose or fairly suggest all of the limitations of independent claim 1.

For example, independent claim 1 recites:

A method of using stereo vision to interface with a computer, the method comprising:  
capturing a stereo image;  
***defining an object detection region within a field of view of the stereo image and smaller than the field of view;***  
processing the stereo image to determine position information of an object in the object detection region ***with respect to the object detection region***, the object being controlled by a user; and  
using the position information to allow the user to interact with a computer application.

Applicant respectfully submits that Pryor does not disclose or fairly suggest any teachings with respect to, “defining an object detection region within a field of view of the stereo image and smaller than the field of view...to determine position information of an object in the object detection region with respect to the object detection region” as recited in claim 1.

The Office Action, with respect to, for example, claim 80 (addressed in more detail below), takes the position that Pryor discloses “an object detection region,” and refers to page 11, paragraphs 247 and 249 of Pryor. However, the cited portions of Pryor relate, at best, only to an “object detection region” in the general sense that a field of view of the camera(s) of Pryor define a region in which an object is detected.

In contrast, claim 1 recites the defining of an object detection region that is different from (e.g., smaller than) such a field of view, and further recites that the position information of an object within the object detection region is determined with respect thereto. For example, Applicant's specification recites in the paragraph bridging pages 14 and 15 that, (with emphasis added), “(o)bjects detected by the stereo cameras within the image detector 103 may be excluded from consideration if their positions lie outside the region of interest 102, or if they have shape or other qualities inconsistent with those expected of a person in a pose consistent with the typical use of the system 100. As a result, few limitations are imposed on the environment in which the system may operate. The environment may even contain additional people who are not interacting with the system.”

Thus, none of Pryor, Gordon, Onda, and Maurer, or any proper combination thereof, discloses or suggests techniques for determining an object of interest from a field of view with respect to a defined object detection region. For example, Applicant notes that the cited portions of Gordon and Onda merely disclose, at best, particular analysis techniques for defining regions within a field of view with respect to a detected (potential) object of interest, and not the other way around, as recited in Applicant's claim 1, so that claim 1 is believed to be allowable for at least these reasons. Maurer is primarily cited for its teachings related to a use of avatar(s), which Applicant submits (without agreeing with any characterization thereof in the Office Action) is not related to the above-discussed limitations of claim 1.

Further, independent claims 50 and 71 recite a similar combination of features as claim 1, and so are believed to be allowable for at least the same reasons.

Independent claims 54, 68, and 85 recite, “defin(ing) an object detection region in three-dimensional coordinates relative to a position of the first and second video cameras...,” which, as should be clear from the above discussion, is not disclosed or fairly suggested by Pryor. That is, Pryor does not define or assign coordinates to a spatial region as recited in claims 54, 68, and 85; rather, as already discussed, Pryor is concerned with identifying marked objects within a field of view of a camera(s), but does not assign coordinates to any space within that field of view, as recited in claims 54, 68, and 85.

Finally, independent claim 80 recites, with emphasis added, “defin(ing) a control region between the cameras and the object of interest, the control region being positioned at a ***predetermined location*** and having a ***predetermined size*** relative to a size and a location of the object of interest...” Thus, as above, Pryor does not disclose or properly suggest defining such a (predetermined) control region, so that claim 80 is allowable for at least these reasons. Maurer, which is cited in the rejection of claim 80 (as well as in the rejection of claim 85, just discussed), is cited primarily for its teachings related to a use of avatar(s), which Applicant submits (without agreeing with any characterization thereof in the Office Action) is not related to the above-discussed limitations of claims 80 or 85, and, therefore, does not cure the deficiencies of Pryor.

Based on the above, Applicant submits that independent claims 1, 50, 54, 68, 71, 80, and 85 are allowable for at least the above reasons, so that their respective dependent claims 2-49, 51-53, 55-67, 69, 70, 72-79, 81-84, and 86-98 are allowable for at least the same reasons. Therefore, all claims are believed to be in condition for allowance, and such action is hereby requested in the Examiner's next official communication.

Applicant : Evan HILDRETH et al.  
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Enclosed is a \$225.00 check for the Petition for Extension of Time fee, extending the time for response by two months from August 23, 2004 to January 24, 2005 (January 23, 2005 being a Sunday). Please apply any other charges or credits to deposit account 06-1050.

Respectfully submitted,

Date: \_\_\_\_\_

January 24, 2005

  
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